

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P475493

Luminaire Tested: **14CZ2-60HE-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475493
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-60HE-SQR-UNV-L830-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5472.4 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

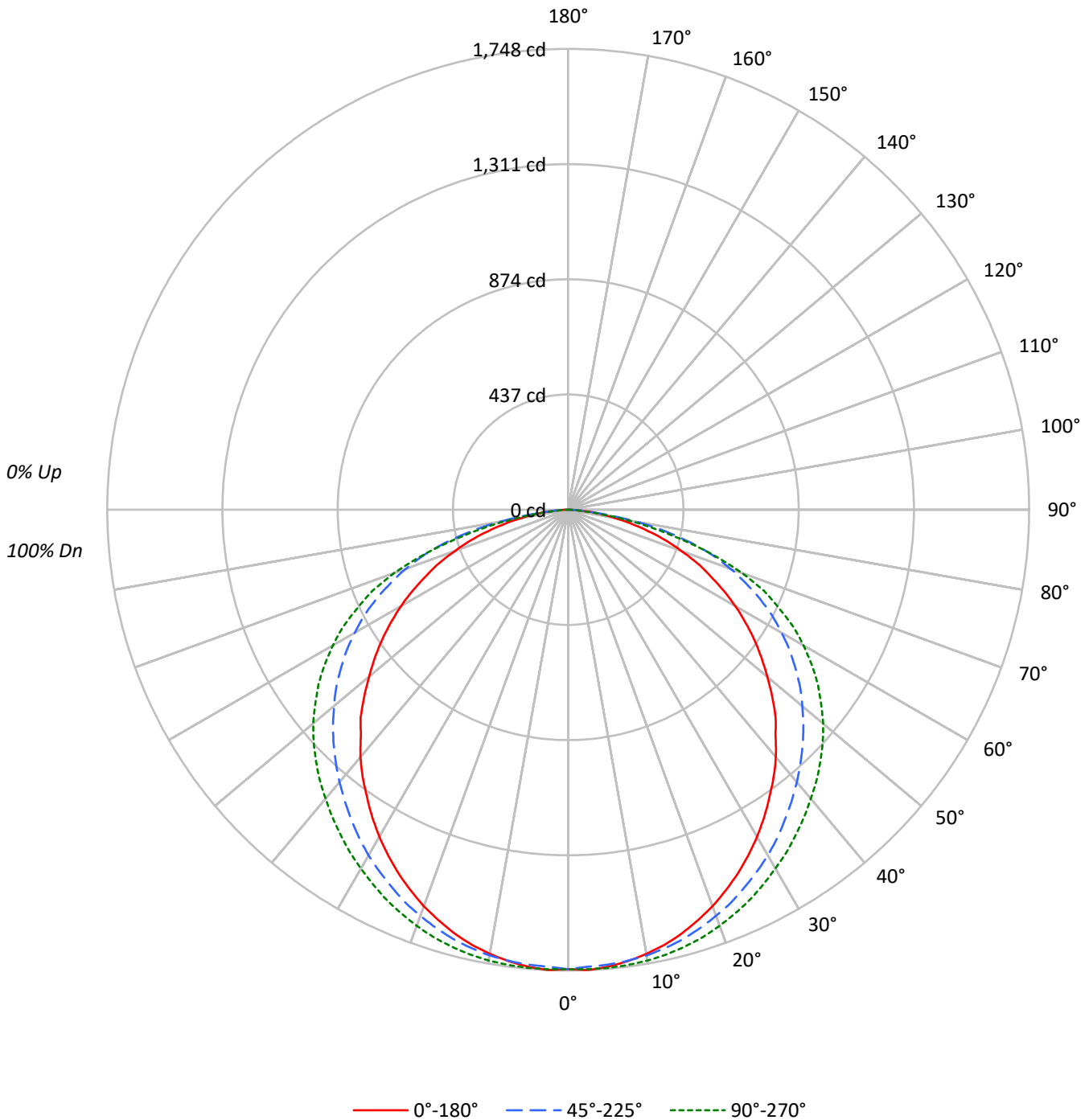
Input Watts (W): 44.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	77	74	70	68
3	89	78	69	63	86	76	68	62	73	67	61	70	65	60	68	63	59	57
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	43	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	37	31	27	25
10	52	38	30	25	50	38	30	25	37	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4690	4690	4690
5°	4700	4679	4712
10°	4674	4691	4746
15°	4636	4696	4778
20°	4584	4695	4810
25°	4519	4693	4845
30°	4451	4705	4883
35°	4370	4710	4944
40°	4304	4738	5026
45°	4234	4787	5145
50°	4127	4852	5285
55°	4045	4937	5423
60°	3942	5031	5547
65°	3788	5116	5608
70°	3586	5155	5508
75°	3277	4980	4756
80°	2754	4071	3544
85°	2004	2050	1337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.5	3.0
10°-20°	477.0	8.7
20°-30°	729.4	13.3
30°-40°	895.2	16.4
40°-50°	962.7	17.6
50°-60°	924.2	16.9
60°-70°	765.6	14.0
70°-80°	458.9	8.4
80°-90°	93.9	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1371.9	25.1
0°-40°	2267.1	41.4
0°-60°	4154.0	75.9
0°-90°	5472.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5472.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1743	1743	1743	1743	1743	
5°	1740	1737	1732	1746	1744	165
15°	1664	1672	1686	1712	1715	469
25°	1522	1547	1581	1622	1632	701
35°	1330	1375	1434	1490	1505	833
45°	1112	1171	1258	1327	1352	855
55°	862	944	1052	1130	1156	770
65°	595	692	804	867	881	590
75°	315	411	479	468	457	333
85°	65	94	66	45	43	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1743.0	1743.0	1743.0	1743.0	1743.0
2.5°	1747.6	1743.0	1735.2	1747.6	1744.5
5°	1739.9	1736.8	1732.1	1746.0	1744.5
7.5°	1727.5	1727.5	1726.0	1743.0	1741.4
10°	1710.5	1713.6	1716.7	1736.8	1736.8
12.5°	1690.4	1693.5	1702.8	1726.0	1727.5
15°	1664.1	1671.9	1685.8	1712.1	1715.1
17.5°	1633.2	1645.6	1664.1	1695.1	1699.7
20°	1600.8	1614.7	1639.4	1673.4	1679.6
22.5°	1562.2	1582.3	1613.2	1648.7	1656.4
25°	1522.0	1546.7	1580.7	1622.4	1631.7
27.5°	1478.7	1508.1	1548.3	1591.5	1602.3
30°	1432.4	1466.4	1514.3	1560.6	1571.4
32.5°	1382.9	1423.1	1475.6	1526.6	1540.5
35°	1330.4	1375.2	1433.9	1489.5	1505.0
37.5°	1279.4	1327.3	1392.2	1452.5	1469.5
40°	1225.3	1276.3	1348.9	1412.3	1430.8
42.5°	1163.5	1225.3	1304.1	1372.1	1393.7
45°	1112.5	1171.2	1257.8	1327.3	1352.0
47.5°	1049.2	1117.2	1209.9	1284.0	1308.8
50°	985.8	1063.1	1158.9	1236.1	1262.4
52.5°	924.0	1002.8	1109.4	1185.1	1208.3
55°	862.2	944.1	1052.3	1129.5	1155.8
57.5°	797.3	886.9	996.6	1073.9	1095.5
60°	732.4	822.0	934.8	1009.0	1030.6
62.5°	664.4	760.2	873.0	941.0	962.6
65°	594.9	692.2	803.5	866.8	880.7
67.5°	530.0	628.9	729.3	788.0	801.9
70°	455.8	560.9	655.2	698.4	700.0
72.5°	387.8	485.2	574.8	587.2	584.1
75°	315.2	411.0	479.0	468.2	457.4
77.5°	244.1	341.5	377.0	346.1	338.4
80°	177.7	265.8	262.7	233.3	228.7
82.5°	122.1	183.9	151.4	123.6	114.3
85°	64.9	94.3	66.4	44.8	43.3
87.5°	24.7	23.2	13.9	9.3	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)